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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,798	01/25/2002	Swi Barak	CME/02-001.IL.US	9305

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EXAMINER

TYLER, CHERYL JACKSON

ART UNIT	PAPER NUMBER
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3746

DATE MAILED: 06/04/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/057,798

Applicant(s)

BARAK, SWI

Examiner

Cheryl J. Tyler

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "cavities 46 or 48" (at least page 8, lines 9 and 23). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:

- The recitation of "Fig. 4" (page 5, line 14) is presumed to be --Fig. 5--.

Appropriate correction is required.

Claim Objections

3. Claims 15-16 are objected to because of the following informalities:

- The recitation of "claim 13" (claim 15, line 1) is presumed to be --claim 14-- for proper antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-16 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 3 recites process limitations in an apparatus claim. It is not clear as to whether the claim is intended to limit the apparatus or whether it should be an independent method claim. As such, claim 3 has been given little patentable weight, and the prior art rejection has been applied, as best understood. Appropriate correction is required.

6. Claim 1 recites the limitation "said members" in line 6 of the claim. Similarly, claim 18, line 8 includes the same limitation. There is insufficient antecedent basis for this limitation in the claim. It is unclear as to whether "said members" refers to the first and second tube-clamping members; a first set of tube squeezing members; a second set of tube squeezing members; or some other members. Appropriate correction is required.

7. Claims 2-7 and 10-16 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the relationship of the disposal flow set to the piston pump. As claimed, it is not clear how the valve and drip chambers are associated with the pump of claim 1. Further, it is not clear as to whether the flexible tube in claim 2 is the same as the flexible tube segment claimed in independent claim 1.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 9, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Crittendon et al. (6,064,797). Crittendon et al. teach a motor 32 ; offset cams 60, comprising twelve offset cams 61-72 on an axis (corresponding to the claimed synchronizing device); a first upstream pumping element 91 (corresponding to the claimed first tube-clamping member); pumping fingers 92-97 (corresponding to the claimed first set of tube squeezing members); a downstream pumping element 102 (corresponding to the claimed second tube-clamping member); pumping fingers 98-101 (corresponding to the claimed second set of tube squeezing members); tubing 20 (corresponding to the claimed flexible tube) having at least one squeezing segment defining two ends (see column 4, lines 49-52); a microprocessor (corresponding to the claimed communication device). Crittendon et al. teach the claimed method in column 5, line 35-column 6, line 15.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 2-8, 10-12, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crittendon et al. (mentioned previously) in view of Alderson et al. (4,781,548) and Cannon et al. (4,617,014). Crittendon et al. teach most of the limitations of the claims, except the details of a disposal flow set. Alderson et al. teach an administration set A including a drip chamber 104, a valve 108, and a cannula 128 (corresponding to the claimed flexible tube); a drop counter (unnumbered, but clearly illustrated in Figure 10 and taught in column 7, lines 5-9); and an air in-line detector (unnumbered, but clearly illustrated in Figure 10). Alderson et al. teach that the administration set A is old and well known in the art for dispensing metered fluid in a simple, yet accurate manner. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the administration set, as taught by Alderson et al. in the Crittendon et al. invention, in order to advantageously provide a simple, and accurate means for dispensing a fluid to a peristaltic pump.

While Crittendon et al., as modified by Alderson et al., teach most of the limitations of the claims, they do not explicitly teach stoppers on each end of the pumping segment nor details of a pressure sensor for the tube. Cannon et al. teach fitments 60, 62 (corresponding to the claimed stoppers) disposed on either end of a pumping tube section 18. Cannon et al. teach that it is desirable to use the fitments to accurately locate the pumping tube section within the peristaltic assembly. Cannon et al. further teach a gauge assembly 44 (corresponding to the claimed sensor unit)

adapted for determining the pressure of a liquid flowing through tube 18. The gauge assembly defines a tube receiving space formed by walls 46 engaging at least a portion of the tube (see Figure 6); a block 70 and strain beam 68 (corresponding to the claimed sensing member) projecting in the space for determining deformation-resistance of the tube). Cannon et al. teach that it is desirable to monitor the fluid pressure in the fluid line for the safe operation of an IV administration system. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use stoppers and tube pressure sensors, as taught by Cannon et al., in the Crittendon et al., as modified by Alderson et al., invention in order to accurately located the pumping tube section for more efficient pumping, and to monitor fluid pressure in the tube to safely operate an IV system.

Allowable Subject Matter

12. Claims 13-16 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

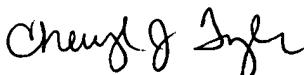
- Butterfield (5,827,223); Bloomquist (4,690,673); Borsanyi (4,854,836); and D'Silva (5,018,945) teach devices as known in the art.

Contact Information

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl J. Tyler whose telephone number is 703-306-2772. The examiner can normally be reached on Monday-Thursday, 6:00 - 10:30 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy S. Thorpe can be reached on 703-308-0102. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0861.


Cheryl J. Tyler
Primary Examiner
Art Unit 3746

CJT
June 2, 2003